

Application No.: 10/680,049

Docket No.: 103488-0021

REMARKS

This reply is submitted in response to the Office Action of August 26, 2004. The amendments and remarks address the points raised in the Office Action, and thereby, place this application in condition for allowance.

Restriction Requirement

Claims 21-41, corresponding to Group II, are cancelled without prejudice, and Applicant is proceeding with claims 1-20 and 42, corresponding to Group I.

Claim Rejections under 35 U.S.C. § 112

Claims 1, 11, 15, and 42 stand rejected under 35 U.S.C. § 112, first paragraph, for lack of enablement, and under 35 U.S.C. § 112, second paragraph, for lack of antecedent basis. These claims are amended to overcome these rejections.

Claim Rejections under 35 U.S.C. § 103

Claims 1, 7, 9, 11, 13, 15, 17, 19, and 42 stand rejected under 35 U.S.C. § 103 as being unpatentable over Conklin, U.S. Patent No. 6,415,283 in view of Sokol, U.S. Patent No. 6,405,211.

Claim 1 is directed to a method for identifying related data in a directed graph, comprising executing the sub-steps of (i) identifying as related data substantially matching a criteria, (ii) identifying as related data that is a direct ancestor of data identified in any of the sub-steps, and that is not in substantial conflict with the criteria, and (iii) identifying as related data (hereinafter "identified descendent") that is a direct descendent of data (hereinafter "identified ancestor") identified as related in any of the sub-steps, and which identified descendent (a) does not have a named relationship with the identified ancestor substantially matching a relationship named in the criteria, if any, and (b) is not in substantial conflict with the criteria; (c) does not have a named relationship with the identified ancestor matching a relationship the identified ancestor has with a data, if any, as a result of which the identified

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ancestor was identified during execution of sub-step (ii). The method further comprises generating an indication of data identified as related in the previous steps.

Claim 11 a method for identifying related data in a directed graph, comprising executing the sub-steps of (i) identifying as related data substantially matching a criteria, and (ii) identifying as related data that is a direct ancestor of data identified as related in any of the sub-steps, and that is not in substantial conflict with the criteria. The method further comprises generating an indication of data identified as related in the previous steps.

Claim 15 is directed to a method for identifying related data in a directed graph, comprising executing the sub-steps of (i) identifying as related data substantially matching a criteria, and (ii) identifying as related data (hereinafter "identified descendent") that is a direct descendant of data (hereinafter "identified ancestor") identified in any of the sub-steps, and which identified descendent (a) does not have a named relationship with the identified ancestor substantially matching a relationship named in the criteria, if any, and (b) is not in substantial conflict with the criteria; (c) does not have a named relationship with the identified ancestor matching a relationship the identified ancestor has with a data, if any, as a result of which the identified ancestor was identified as related.

Claim 42 is directed to a method for identifying related data in a directed graph, comprising executing the sub-steps of (i) identifying as related data that is a direct ancestor of data identified in any of the sub-steps, and that is not in substantial conflict with the criteria; (ii) identifying as related data (hereinafter "identified descendent") that is a direct descendant of data (hereinafter "identified ancestor") identified as related in any of the sub-steps and which identified descendent (a) does not have a named relationship with the identified ancestor substantially matching a relationship named in the criteria, if any, and (b) is not in substantial conflict with the criteria; (c) does not have a named relationship with the identified ancestor matching a relationship the identified ancestor has with a data, if any, as a result of which the identified ancestor was identified during execution of sub-step (ii). The method further comprises generating an indication of data identified as related in the previous steps.

Conklin purports to teach a method to determine at least one focal point of clusters in a hierarchical tree structure of nodes, based on attributes with corresponding weight values in a

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data set. A set of nodes is selected based on the attributes in the data set, and values are assigned to the nodes using the weights from the data set. The focal node is selected based on the weight values (see Fig. 4), using three weights for each node; a raw weight, a descendant weight, and an ancestor weight (see specification, col. 5, line 20). Nowhere does Conklin teach or suggest a method for identifying related data in the tree structure using the methods in the independent claims of the application.

Sokol purports to teach a method for extracting meaning from information stored in object-based representations of documents as information containers, to provide document interpretation. The objects can be arranged in a hierarchy of parent and child objects for use in the process of assimilating the objects into a peer information container, which would contain multiple objects all dealing with attributes of the same physical object. Sokol does not teach or suggest a method for identifying related data in the hierarchy by the methods in the independent claims.

Dependent claims 7 and 9 each contain all the features of claim 1, and are allowable for the same, and other, reasons. Dependent claim 13 contains all the features of claim 11 and is allowable for the same, and other reasons. Dependent claim 17 and 19 each contain all the features of claim 15 and are allowable for the same, and other, reasons.

Claims 2, 3, 12, and 16 are rejected under 35 U.S.C. § 103 as being unpatentable over Conklin in view of Sokol and further in view of Bachmann, U.S. Patent No. 6,085,188.

Claim 2 and 3 are dependent on claim 1, claim 12 is dependent on claim 11, and claim 16 is dependent on claim 15. The secondary reference of Bachmann does not remedy the deficiencies of Conklin and Sokol. It merely suggests a method of searching using relational tables by representing the naming hierarchy of a directory service with the tables to facilitate fast directory service capabilities, in part by creating tables of the parent-child and descendant-ancestor relationships in the hierarchy. Nowhere does it teach or suggest identifying related data in a directed graph by the methods in the independent claims.

Claims 4, 8, 14, and 18 are rejected under 35 U.S.C. § 103 as being unpatentable over Conklin in view of Sokol and further in view of Blakeley, U.S. Patent No. 5,826,077.

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Claims 4 and 8 are dependent on claim 1, claim 14 is dependent on claim 11, and claim 18 is dependent on claim 15. The secondary reference of Blakeley does not remedy the deficiencies of Conklin and Sokol. It merely suggests a method to improve integration between a query and an object-orientated host programming language, and to make database programming more accessible when using these languages. Nowhere does it teach or suggest identifying related data in a directed graph by the methods in the independent claims.

Claims 5, 6, 10, and 20 are rejected under 35 U.S.C. § 103 as being unpatentable over Conklin in view of Sokol and further in view of Yue, U.S. Patent No. 5,129,043.

Claims 5, 6, and 10 dependent on claim 1, and claim 20 depends on claim 15. The secondary reference of Yue does not remedy the deficiencies of Conklin and Sokol. It merely suggest a method for monitoring a rule based expert system for determining program execution inefficiencies. Nowhere does it teach or suggest identifying related data in a directed graph by the methods in the independent claims.

Conclusion

In view of the above, Applicants respectfully submits that the claimed invention is patentable. Applicants therefore kindly request consideration of all claims in light of the above remarks and allowance thereof.

The Examiner is also kindly requested to contact the undersigned if such would expedite examination and allowance of the application.

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